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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,746	06/01/2001	Yoshitaka Ukita	7217/64710	3910

7590

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EXAMINER
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NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/872,746

Applicant(s)

UKITA ET AL.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) \_\_\_\_\_ is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This application has been examined. The claims 1-5, and 7-15 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 8-9, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto (US patent 6,046,732) in view of Roylance (US patent 6,198,474).

Regarding claims 1-2 and 8-9, Nishimoto discloses in figure 1 that a mobile device (1) comprising a handheld housing that is taller than it is wide when the mobile device is in an upright position; and two groups of device keys mounted on the housing (group 1, 2, 3) and group (4, 5, 6). However, Nishimoto does not disclose wherein a first one of said two groups of device keys comprises a first plurality of rows of corresponding to a left-hand portion, and a second one of said two groups of device keys comprises a second plurality of rows of keys corresponding to right-hand portion; and said two groups of keys are shifted relative to each other in the widthwise direction of the housing, such that the keys corresponding to the left-hand portions of the rows of the QWERTY keyboard are misaligned so as to be offset relative to the keys corresponding to the right-hand portions of said rows of a QWERTY keyboard. Roylance discloses in figure 3, a

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keyboard apparatus comprising two groups data entry keys, a first group left-hand are (QWERT; ASDFG; ZXCVB), a second group are right-hand (YUIOP; HJKL; NM) and said two groups of keys are shifted relative to each other in the widthwise direction of the housing, such that the keys corresponding to the left-hand portions of the rows of the QWERTY keyboard are misaligned so as to be offset relative to the keys corresponding to the right-hand portions of said rows of a QWERTY keyboard. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the keyboard comprising two groups data entry keys, wherein a first one of said two groups of device keys comprises a first plurality of rows of corresponding to a left-hand portion, and a second one of said two groups of device keys comprises a second plurality of rows of keys corresponding to right-hand portion; and said two groups of keys are shifted relative to each other in the widthwise direction of the housing and shifted in vertical direction of the housing of the keyboard with respect to each other as taught by Roylance into the mobile device of Nishimoto because this would help the user to know the positions of the desired keys are located in the keyboard, and therefore easily enter character enter by the fingers.

Regarding claim 13, Roylance discloses in figures 3-4, wherein the step of arranging the device keys comprises interleaving a first row of the first group of keys in the longitudinal direction of the housing from the corresponding row of the second group of keys corresponding to the same row of a QWERTY keyboard by a first space; and separating said corresponding row of the second group of keys in the longitudinal direction of the housing from a second row of the first group of keys of the next row of a

QWERTY keyboard by a second spacing different than said first spacing group of device keys corresponding to a part of a first row of computer keyboard are separated on the housing by a first spacing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the keyboard comprising two groups data entry keys, a first row of the first group of keys in the longitudinal direction of the housing from the corresponding row of the second group of keys corresponding to the same row of a QWERTY keyboard by a first space; and separating said corresponding row of the second group of keys in the longitudinal direction of the housing from a second row of the first group of keys of the next row of a QWERTY keyboard by a second spacing different than said first spacing group of device keys corresponding to a part of a first row of computer keyboard are separated on the housing by a first spacing as taught by Roylance into the mobile device of Nishimoto because this would help the user to know the positions of the desired keys are located in the keyboard, and therefore easily enter character enter by the fingers.

Regarding claim 15, Roylance further discloses a third row of keys is separated in the longitudinal direction of the housing from the second row of key on the housing by a second distance different than the first distance (see figure 3).

3. Claims 3-4, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto (US patent 6,046,732) in view of Roylance. (US patent 6,198,474) as applied to claims 1 and 8, and in view of Whitcroft (WO 98/19227 cited by Applicant).

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Nishimoto discloses in figure 1 that a mobile device (1) comprising a vertical oriented handheld housing and device keys mounted on the housing, the device keys (4) corresponding to personal computer keys mounted on a horizontally oriented keyboard of a personal computer and a plurality of row of personal computer keys mounted on the keyboard. Roylance discloses a keyboard apparatus comprising two groups data entry keys are shifted in vertical direction. However, Nishimoto and Roylance do not disclose a step of making a color of the first group of device keys is different from a color of the second group of device keys, or a color of row of device keys in the first group and the second group is different from a color of an other row of device keys in the first group and the second group. Whitcroft discloses a data entry device includes the keys of keypad may configured as an array are arranged in rows and columns, and also arranged such that each row (or group or rows) forms a key-zone, each zone is different color (see page 17, lines 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement each row (or group or rows) forms a key-zone, each zone is different color as taught by Whitcroft into the computer keyboard having function groups of Nishimoto and Kambayashi et al. because this would be indicated with each zone having different color for designating to the user and which finger is to be used for each zone (see page 17, lines 8-9 and see page 27, claim 21).

4. Claims 5, 7, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimoto (US patent 6,046,723) and Roylance (US patent 6,198,474) as applied to claims 1 and 8, and in view of Kono (US patent 5,914,707).

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Nishimoto discloses a screen of a liquid crystal display panel input means (2, see figure 2); and associating the device key images formed at the predetermined positions on the liquid crystal display pane input means with a plurality of device keys on the housing (see figure 1). Roylance disclose the first group is shifted vertical to the second group. However, Nishimoto and Roylance do not disclose the devices keys on the housing are formed by touch-sensitive liquid crystal display panel input means, and the keyboard of mobile device having the second spacing is greater than the first spacing.

Regarding claims 5 and 12, Kono disclose in figure 10, a portable apparatus having a plurality of keys, wherein LCD display comprises an (26) overlying transparent touch key panel to provide a series of display icons 63,64,65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a transparent touch panel as taught by Kono into the surface of the liquid crystal display panel of Nishimoto and Roylance because this would be activated of these displayed icons and permit the user to receive additional relevant data related to currently displayed data (see column 7, lines 6-12).

Regarding claims 7 and 14, it would have been obvious for Nishimoto and Roylance's system to have the second spacing is greater than the first spacing as claimed since such a modification would have involved a mere change in the size/range of a system. A change in size/range is generally recognized as being within the level of ordinary skill in the art.

See In re Rose, 105 USPQ 237 (CCPA 1995) and

See In re Reven, 156 USPQ 679 (CCPA 1968).

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***Response To Arguments***

5. Applicant's arguments filed on 10-2-03 have been fully considered but they are not persuasive.

Applicant argues that Nishimoto and Roylance do not disclose the two groups and divided in the keyboard. However, examiner respectfully disagrees with the argument because in figures 3-4 Roylance discloses the two groups comprising a first group left-hand are (QWERT; ASDFG; ZXCVB), a second group are right-hand (YUIOP; HJKL; NM) into the mobile of Nishimoto as discusses above. For these reasons, the rejections are maintained.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



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***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen  
April 6, 2004



**RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**